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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,957	04/03/2007	**Brian Steer**	564462009500	1684

45975 7590 10/05/2009

VERENIUM C/O MOFO S.D.
12531 HIGH BLUFF DRIVE
SUITE 100
SAN DIEGO, CA 92130-2040

EXAMINER	
MEAH, MOHAMMAD Y	
ART UNIT	**PAPER NUMBER**
1652	

MAIL DATE	DELIVERY MODE
10/05/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/560,957	STEER ET AL.	
	Examiner	Art Unit	
	MD. YOUNUS MEAH	1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *1* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *See Continuation Sheet* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *See Continuation Sheet* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims pending in the application are 1,27,31,34,38-42,45,48,50,52,54,56,57,59,60,91,92,95,96,98,100,102-104,106,108-112,116,120-122,126,131,141,146,162-164,173,175-178,180,181,187,189,197,199-206,209-211 and 213.

Continuation of Disposition of Claims: Claims subject to restriction and/or election requirement are 1,27,31,34,38-42,45,48,50,52,54,56,57,59,60,91,92,95,96,98,100,102-104,106,108-112,116,120-122,126,131,141,146,162-164,173,175-178,180,181,187,189,197,199-206,209-211 and 213.

DETAILED ACTION

Claims 1, 27, 31, 34, 38-42, 45, 48, 50, 52, 54, 56-57, 59-60, 91-92, 95-96, 98, 100, 102-104, 106, 108-112, 116, 120-122, 126, 131, 141, 146, 162-164, 173, 175-178, 180-181, 187, 189, 197, 199-206, 209-211 and 213 are pending in the instant office action.

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Groups 1-259. Claims 1, 27, 31, 34, 39, 40-42, 45, 98, 106, 197, 199, drawn to a nucleic acid comprising SEQ ID NO: 1, 3, 5 . . . 293, 295... 515, 517 encoding glycosidase, vector, host cell and a method of making the protein, wherein group 1 corresponds to SEQ ID NO: 1, group 2 corresponds to SEQ ID NO: 3 and so on.

Groups 260-518. Claims 38, 60, 91-92, 95-96, 98, 162, 175, 177, 180, 187, 200-202, 204-205, 209, 211, drawn a polypeptide comprising SEQ ID NO: 2, 4, 6 . . . 294, 296... 516, 518, or composition comprising said polypeptide, wherein group 260 corresponds to SEQ ID NO: 2, group 261 corresponds to SEQ ID NO: 4 and so on.

Groups 519-777. Claims 48, 50 and 52, drawn a transgenic animal or plant having gene comprising a nucleic acid sequence of SEQ ID NO: 1, 3, 5 . . . 293, 295... 515,

517 wherein group 519 corresponds to a transgenic plant or an animal having SEQ ID NO: 1, group 520 corresponds to SEQ ID NO: 3 and so on.

Groups 778-1036. Claims 54 , 56, 57, 59, drawn an antisence polynucleotide or double strand RNA comprising subsequense of or complementary to gene comprising the nucleic acid sequence of SEQ ID NO: 1, 3, 5 . . . 293, 295... 515, 517 wherein group 778 corresponds to having SEQ ID NO: 1, group 2 corresponds to SEQ ID NO: 3 and so on.

Groups 1037-1295. claim 98, drawn to an array comprising any combination of immobilized nucleic acid molecule comprising the nucleic acid sequence of SEQ ID NO: 1, 3, 5 . . . 293, 295... 515 or 517 and a polypeptide comprising SEQ ID NO: 2, 4, 6 . . . 294, 296... 516 or 518, wherein group 1037 comprises an array comprising combination of nucleic acid molecule comprising the nucleic acid sequence of SEQ ID NO: 1, and a polypeptide comprising SEQ ID NO: 2 and so on.

Groups 1296-1554. claims 100, 102-103, drawn to an antibody to a polypeptide comprising SEQ ID NO: 2, 4, 6 . . . 294, 296... 516 or 518 and a method of using of said antibody, wherein group 1296 corresponds to an antibody to a polypeptide of SEQ ID NO: 2, group 1297 corresponds to SEQ ID NO: 4 and so on.

Groups 1555-1813. Claim 104, drawn to a method of making an antibody to a polypeptide comprising SEQ ID NO: 2, 4, 6 . . . 294, 296... 516 or 518, wherein group 1555 corresponds to a method of making of an antibody to a polypeptide comprising SEQ ID NO: 2 and so on.

Groups 1814-2072. Claims 108-109, drawn to a method of identifying a polypeptide comprising SEQ ID NO: 2, 4, 6 . . . 294, 296... 516, 518, wherein group 1814 corresponds to a method of identifying a polypeptide comprising SEQ ID NO: 2 and so on.

Groups 2073-2331. Claims 110-112, drawn to a method of use of a polypeptide comprising SEQ ID NO: 2, 4, 6 . . . 294, 296... 516, 518 for binding, modulating its activity, wherein group 2073 corresponds to a method of use of a polypeptide comprising SEQ ID NO: 2 and so on.

Groups 2332-2590. Claims 116, 120-122, drawn to a computer data storage device storing a nucleic acid comprising SEQ ID NO: 1, 3, 5 . . . 293, 295... 515 or 517 wherein group 2332 corresponds to a computer stored SEQ DN NO: 1 and so on.

Groups 2591-2849. Claim 126, drawn to a method of isolating a nucleic acid comprising nucleic acid sequence of SEQ ID NO: 1, 3, 5 . . . 293, 295... 515 or 517, wherein group 2591 corresponds to the method that uses nucleic acid having SEQ ID NO: 1, and so on.

Groups 2850-3108. claims 131, 141, 146, drawn to a method of generating, or modifying gene using an amplifying primer comprising several nucleic acids from nucleic acid sequence of SEQ ID NO: 1, 3, 5 . . 293, 295, 515 or 517, wherein group 2850 corresponds to the method that uses an amplifying primer comprising several nucleic acids from nucleic acid having SEQ ID NO: 1, and so on.

Group 3109-3367. Claim 163, drawn to a chimeric protein comprising signal polypeptide and polypeptide comprising SEQ ID NO: 2, 4, 6 . . . 294, 296... 516 or 518,

wherein group 3109 corresponds to a chimeric protein comprising signal polypeptide and a polypeptide comprising SEQ ID NO: 2 and so on.

Groups 3368-3625. Claim 164, drawn to a nucleic acid encoding chimeric protein comprising signal polypeptide and polypeptide comprising SEQ ID NO: 2, 4, 6 . . . 294, 296... 516 or 518, wherein group 3368 corresponds to a nucleic acid encoding a chimeric protein comprising signal polypeptide and a polypeptide comprising SEQ ID NO: 2 and so on.

Groups 3626-3884. Claim 173, drawn to a method of hydrolyzing a glucan composition using a polypeptide comprising SEQ ID NO: 2, 4, 6 . . . 294, 296... 516 or 518, wherein group 3626 to the method that uses polypeptide comprising SEQ ID NO: 2 and so on.

Groups 3885-4143 . Claim 176, drawn to method of conditioning dough using polypeptide comprising SEQ ID NO: 2, 4, 6 . . . 294, 296... 516 or 518, wherein group 3885 corresponds to the method that uses polypeptide comprising SEQ ID NO: 2 and so on.

Groups 4144-4402. claim 178 , drawn to a method of producing a beverage using the polypeptide comprising SEQ ID NO: 2, 4, 6 . . . 294, 296... 516 or 518, wherein group 4144 to the method that uses the polypeptide comprising SEQ ID NO: 2 and so on.

Groups 4403-4661. Claims 181, 189, drawn to a method of using a polypeptide as a nutritional product for a mammal wherein said polypeptide comprises SEQ ID NO:

2, 4, 6 . . . 294, 296... 516 or 518, wherein group 4403 uses the polypeptide of SEQ ID NO: 2 and so on.

Groups 4662-4920. Claims 203, 210, drawn to a method of improving paper, fuel etc using a polypeptide wherein said polypeptide comprises SEQ ID NO: 2, 4, 6 . . . 294, 296... 516 or 518, wherein group 4662 uses the polypeptide of SEQ ID NO: 2 and so on.

Groups 4921-5179. Claim 206, drawn to a method protecting an animal from microorganism using a polypeptide comprising of SEQ ID NO: 2, 4, 6 . . . 294, 296... 516 or 518, wherein group 4921 uses polypeptide of SEQ ID NO: 2 and so on.

Groups 5180-5438. Claim 213, drawn to a method of improving texture and flavor of food using a polypeptide comprising of SEQ ID NO: 2, 4, 6 . . . 294, 296... 516 or 518, wherein group 5180 uses polypeptide of SEQ ID NO: 2 and so on.

The inventions listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Groups 1-259, groups 260-518, groups 519-777, groups 778-1036, groups 1037-1295, groups 1296-1554, and groups 2332-2590 comprise different subjects having different technical features: DNA, polypeptide, transgenic animal, RNA, antibody, and computer, each of these different technical features having different structures and functions. DNA comprises nucleic acids, proteins comprise amino acids, antibodies

have heavy and light chains, animals are multicellular organisms, and computers are machines.

Inventions in groups 1-259 comprise different polynucleotides having different structure as each DNA comprises a unique sequence. The methods of inventions 2850-3108 directed to methods of use of the polynucleotide and the polynucleotides of inventions 1-259 while being a combination comprising a product and a process of use of said product, do not have unity of invention according to 37 CFR 1.475(b) since Group 1 (main invention) already contains one of the combinations set forth in 37 CFR 1.475(b), i.e., a product and a process of use of said product, and the combinations of Groups 2-259 and 2850-3108 are additional combinations as set forth in 37 CFR1.475(b)(2).

Inventions in groups 260-518 comprise different polypeptides having different structure as each polypeptide comprises a unique sequence. The methods of inventions 2073-2331, 3626-3884, 3885-4143, 4144-4402, 4403-4662, 4662-4920, 4921-5179 and 5180-5438 are directed to methods of use of the polypeptide and the polypeptides of inventions 260-518 while being a combination comprising a product and a process of use of said product, do not have unity of invention according to 37 CFR 1.475(b) since Group 1 (main invention) already contains one of the combinations set forth in 37 CFR 1.475(b), i.e., a product and a process of use of said product, and the combinations of Groups 261-518 and 2073-2331, 3626-3884, 3885-4143, 4144-4402, 4403-4662, 4662-4920, 4921-5179 and 5180-5438 are additional combinations as set forth in 37 CFR1.475(b)(2).

The products of groups 260 -518 or groups 1296-1554 and the methods of groups 2850-3108 or groups 2591-2849, lack unity of invention because the methods of groups 2850-3108 or groups 2591-2849 neither use nor make the products of groups 260 -518 or groups 1296-1554.

The products of groups 1-259, groups 519-777 or groups 1296-1554 and the methods of groups 2850-3108, groups 2591-2849, lack unity of invention because the methods of groups 2850-3108 or groups 2591-2849 neither use nor make the products of groups 260 -518 or groups 1296-1554.

Furthermore the technical feature linking groups 1-5438 appears to be that they all relate to glucanases. A glucanase does not constitute a "special technical feature" as defined by PCT Rule 13.2, because it does not claim a feature which defines a contribution over the prior art as glucanases is taught by Poole et al. (Mol. Gen. Genet 1990, 223, 217-223). Poole et al teach an endogluconase which has 62.6% (see UniPortKB Accession NO: P23660 attached) sequence identity to applicants' SEQ ID NO: 2.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Meah whose telephone number is 571-272-1261. The examiner can normally be reached on 8:30-5PM.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mohammad Younus Meah
Examiner, Art Unit 1652

/Delia M. Ramirez/
Primary Examiner, Art Unit 1652